SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS *OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30.*			1. REQUISITION NUMBER A21918647	PAGES 1 OF (1) PAGE(S)
2. CONTRACT NO. GS00Q09BGD0061	3. AWARD/EFFECTIVE DATE 06/26/2018	4. ORDER NUMBER 47QFDA18F0033	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
7. FOR SOLICITATION INFORMATION CALL:	a. NAME		b. TELEPHONE NUMBER *(No Collect Calls)*	8. OFFER DUE DATE/ LOCAL TIME

9. ISSUED BY	10. THIS ACQUISITION IS	11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED	12. DISCOUNT TERMS
GSA Region 11 Marion Williams 301 7th Street, SW Washington, DC 20407-0000 United States (202) 708-6100	☐ UNRESTRICTED ☐ SET ASIDE: % FOR ☐ SMALL BUSINESS ☐ HUBZONE SMALL BUSINESS ☐ 8(A) NAICS: SIC: SIZE STANDARD:	Destination	NET 30 DAYS / 0.00 % 0 DAYS / 0.00 % 0 DAYS
		☐ 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	
		13b. RATING	
		14. METHOD OF SOLICITATION	

15. DELIVER TO	16. ADMINISTERED BY
Benita Meadow 651 7th St., SW Washington, DC 20410 United States (202) 708-0614	Marion Williams (202) 708-6100
17a. CONTRACTOR/ OFFEROR Greta C Ebert DIGITAL MANAGEMENT, LLC 6550 ROCK SPRING DR FLR 7 Bethesda, MD 20817-1124 United States (240) 223-4800	18a. PAYMENT WILL BE MADE BY General Services Administration (FUND) The contractor shall follow these Invoice Submission Instructions. The contractor shall submit invoices electronically by logging into the ASSIST portal (https://portal.fas.gsa.gov), navigating to the appropriate order, and creating the invoice for that order. For additional assistance contact the ASSIST Helpdesk at 877-472-4877. Do NOT submit any invoices directly to the GSA Finance Center (neither by mail nor via electronic submission).
17b. ☐ CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER	18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED

19. ITEM NO	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
ITEM NO.	TASK ITEM DESCRIPTION		PREVIOUS MOD AMT	MOD CHANGE AMT	NEW MOD AMT
0001	Base Year - FFP Tasks 1, 2, 3, & CAF		(b) (4)		
0002	Base Year - Labor Task 4, 5, & CAF				

This is a labor hour and firm fixed price hybrid-type task order for System Operations and Maintenance of the U.S. Department of Housing and Urban Development (HUD) Office Community Planning and Development (CPD) Systems. The Contractor's proposal dated 01/08/2018 and the Final Proposal Revision (FPR) dated April 13, 2018 are accepted as to all items. This task order includes the SF1449 and TOR Sections A through J.

The period of performance for the base year is June 26, 2018 through June 25, 2019. The period of performance for the base year and (4) 12-month option periods are as follows:

Base Year: 06/26/2018-06/25/2019
Option Year One: 06/26/2019-06/25/2020
Option Year Two: 06/26/2020-06/25/2021
Option Year Three: 06/26/2021-06/25/2022
Option Year Four: 06/26/2022-06/25/2023

Funding is obligated for the base year as follows:

CLIN 0001 - FIRM-FIXED PRICE CLIN
Task 1 - Program Management Suppor (b) (4)
Task 2 - Steady State Operational Support: (b) (4)
Task 3 - Transition Services - (transition In): (b) (4)
Contract Access Fee (CAF): (b) (4)

CLIN 0002 - LABOR HOUR CLIN

Task 4 - Corrective Maintenance: $2,235,782.11 - NTE (b) (4)
Task 5 - Development, Modernization and Enhancement (DME): (b) (4)
Contract Access Fee (CAF): (b) (4)

BASE YEAR TOTAL: (b) (4) if CLIN 0002 is fully funded.

The task order ceiling for the overall period of performance and CAF is (b) (4) if all options are exercised.

25. ACCOUNTING AND APPROPRIATION DATA	26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*
285F.Q11FA000.AA20.25.AF151.H08...	$4,376,329.12

☐ 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 and 52.212-5 ARE ATTACHED. ADDENDA ATTACHED.

☐ 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA ATTACHED.

28. CONTRACTOR IS NOT REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES TO ISSUING OFFICE. ☐ CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.	29. AWARD OF CONTRACT: REFERENCE OFFER DATE . YOUR OFFER ON SOLICITATION (BLOCK 5) INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR		31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)* Marion Williams	
30b. NAME AND TITLE OF SIGNER *(Type or print)*	30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER *(Type or print)* Marion Williams (202) 708-6100	31c. DATE SIGNED 6/26/2018
32a. QUANTITY IN COLUMN 21 HAS BEEN		32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE	32c. DATE
32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE	

33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT	
37. CHECK NUMBER		38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		42a. RECEIVED BY *(Print)*		
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER GSA Finance Customer Support 816-926-7287	41c. DATE	42b. RECEIVED AT *(Location)*		
		42c. DATE REC'D *(YY/MM/DD)*	42d. TOTAL CONTAINERS	

AUTHORIZED FOR LOCAL REPRODUCTION	SEE REVERSE SIDE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT	**STANDARD FORM 1449** (REV. 4-2002) Prescribed by GSA - FAR (48 CFR) 53.212

SECTION C
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

NOTE: NOTE: Section C of the Contractor's Alliant Contract is applicable to this TO and is hereby incorporated by reference. In addition, the following applies:

C.1 PURPOSE

The purpose of this task order is to obtain services related to the Operations, Corrective Maintenance, and Development/Modernization/Enhancement (DME), of HUD's grants management Information Technology (IT) systems. These systems primarily support HUD's Office of Community Planning and Development (CPD).

C.2 BACKGROUND

The Office of the Chief Information Officer (OCIO) monitors most IT functions in HUD. Systems (applications) work is currently performed under the Office of Customer Relationship and Performance Management (OCRPM). OCRPM is responsible for providing support to clients in CPD. Additionally, staff in OCRPM serve as the focal point in coordinating the technical activities involved with other OCIO organizations including the Chief Information Officer and Deputies, Investment Management, Enterprise Architecture (EA), Policy and e-Gov, IT Operations, and IT Security offices.

Within CPD is the Office of Technical Assistance and Management (OTAM) which includes the Systems Development and Evaluation Division (SDED). SDED is responsible for coordinating and overseeing IT system operation and maintenance of existing grants systems. SDED is also responsible for coordinating with the CPD Assistant Secretary and other key business stakeholders across CPD and other grant-issuing HUD offices to identify and evaluate the need to enhance existing grants systems. SDED is responsible for planning, budgeting for, seeking approval for, and executing projects to enhance/modernize existing systems once the needs are identified.

Key stakeholders across CPD include:

- The Assistant Secretary or Principal Deputy Assistant Secretary
- The General Deputy Assistant Secretary
- The Deputy Assistant Secretary for Grants
- The Deputy Assistant Secretary for Special Needs
- The Deputy Assistant Secretary for Economic Development
- The Deputy Assistant Secretary for Operations
- The Director of the Field Management Division
- And other senior managers and subject matter experts across CPD

SDED also serves as the focal point for coordinating efforts with external stakeholders including grantees, public interest groups, citizens, White House Office of Management and Budget (OMB), and Congress.

The business processes covered under this procurement include, but are not necessarily limited to, the following general aspects of the Grants Management Lifecycle:

- Application Intake (competitive grants only)
- Application scoring/review (competitive grants only)
- Consolidated Plan or related strategic community assessment and planning
- Annual Action Plan (formula grants only)
- Grant Award

- Activity Setup
- Funding/drawdown/financial controls
- Grantee submission of accomplishment data
- Management reporting of grant financial status and performance
- Geographic Information System (GIS) mapping
- Other functions to further transparency and open government initiatives
- Risk analysis
- Grant and grantee monitoring
- Technical assistance
- Environmental Review
- Internal administrative and workflow functions supporting all the above

This Grants Management Lifecycle is consistent and compatible with the benchmarks identified in the Federal Grants Management Line of Business. The IT systems within scope of this task order each support one or multiple functions of the Grants Management Lifecycle for HUD Grant Programs.

CPD's vision for Grants Management is to:
- Reduce Operations and Maintenance costs required to support grant systems
- Reduce compliance gap between existing or legacy grant systems and current program rules, regulations, policy, guidance, and best practices
- Modernize legacy grant systems
- Automate or increase efficiency of grant management and administrative processes
- Retire manual and/or paper-based processes
- Increase integration among grants systems and reduce reliance on stove-piped, functionally redundant, single-purpose solutions
- Implement new or exploit existing Shared Services in Grants Management within HUD and the Federal space
- Streamline database design to increase performance and reliability
- Centralize data where feasible (single-source) and share via services
- Reduce overall data footprint
- Increase accuracy and standardization of data
- Reduce data entry or other administrative burdens for grantees and HUD staff
- Better utilize existing data for improved analysis, reporting, and decision-making
- Improve system design, interface, usability, and user-friendliness
- Reduce reliance on manual data corrections to reduce overall operational costs
- Improve quality of system releases to minimize need for corrective maintenance
- Enable additional grant programs to leverage grant systems for cost savings
- Further enhance systems with stronger financial controls for improved accountability
- Develop public-facing interfaces for improved transparency
- Transition to Cloud services
- Utilize innovative web technologies for integrated and cost-effective solutions
- Rapidly and efficiently respond to legislative mandates requiring system changes

CPD believes this vision will lead to more rapid award and disbursement of funds to grantees, better execution of grants, greater capacity of grantees, and better on-the-ground performance of grants. Most importantly, CPD believes an improved and integrated spectrum of IT systems will directly lead to improved access to affordable housing, better neighborhood conditions, job creation, and more targeted services to better meet the needs of low-income families, the homeless, HIV/AIDS patients, and other key beneficiaries of HUD's grant programs. In times of limited Federal dollars for grant programs, optimizing use of IT systems can directly lead to improved outcomes, i.e., reduced grantee time spent on administrative paperwork frees up staff time to directly execute and oversee grant activities.

CPD historically has administered approximately 10 to 15 Corrective Maintenance and DME projects annually. The projects varied widely in size and complexity, as seen in the table below:

Project Size	Estimated LOE (hours)	Typical type/complexity of work	Estimated Number Annually
Very small	100 to 300	Minor corrective tweaks	1-3
Small	300 to 1,000	Major corrective fixes, re-design reports, develop new reports, add new data elements to existing module, or requirements analysis for future larger development efforts	1-4
Medium	1,000 to 3,600	Add new functionality, such as new grant program path, new financial controls, update e-snaps forms for annual grant competition (assuming no major overhauls of SNAPs business process), or new system interface	3 - 5
Large	3,600 to 20,000 or more	Add entire new module or program (e.g. Housing Trust Fund, Consolidated Plan, Environmental Review), overhaul entire grant business process (e.g. HEARTH Act, eliminate First-In, First-Out disbursement method), re-engineer system off legacy technology, major data conversion or database re-design	1 - 3

C.2.1 AGENCY MISSION

CPD seeks to develop viable communities by promoting integrated approaches that provide decent housing, a suitable living environment, and expand economic opportunities for low and moderate income persons. The primary means towards this end is the development of partnerships among all levels of government and the private sector, including for-profit and non-profit organizations.

CPD seeks to empower local residents by helping to give them a voice in the future of their neighborhoods; stimulate the creation of community based organizations; and enhance the management skills of existing organizations so they can achieve greater production capacity. Housing and community development are not viewed as separate programs, but rather as among the myriad elements that make up a comprehensive vision of community development. These groups are at the heart of a bottom-up housing and community development strategy. The IT systems identified in this task order request are dedicated to supporting this mission.

Work outlined in this task order request is directly related to the following HUD Strategic Goals:

Goal	Description	Programmatic Link	Supporting System
2-A	End homelessness and substantially reduce the number of families and individuals with severe housing needs	• Continuum of Care • Emergency Solutions Grant	• e-snaps • IDIS OnLine
2-B	Expand the supply of affordable rental homes where most needed	• HOME program • Housing Trust Fund program	• IDIS OnLine
2-C	Utilize HUD assistance to improve health outcomes	• HOPWA programs	• IDIS OnLine
4-A	Catalyze economic development and job creation while enhancing and preserving community assets	• CDBG program	• IDIS OnLine
4-E	Build the capacity of local, state, and regional public and private organizations	• Neighborhood Stabilization Programs • Community Compass Technical Assistance programs	• DRGR
5-A	Create an organization that is empowered, customer-centered, collaborative, and responsive	• Monitoring process for all CPD programs • Environmental Review Process for all CPD programs	• GMP • HEROS
5-B	Create flexible, modern rules and systems	• All programs	• All

The Contractor shall provide innovative, integrated, HUD Enterprise Architecture (EA)-compliant, and cost-effective IT solutions that increase efficiency, reduce data entry, reduce IT system operations costs, and reduce manual/paper-based administrative burdens for HUD staff and grantees in order to meet this mission.

C.2.2 CURRENT ENVIRONMENT

The Technical Environment for each of the existing CPD IT systems is specified below.

HUD currently uses the following business applications: Serena Dimensions Configuration Management (CM) Tool, Oracle Software Platform, Unix/Linux server platform, Grantium application software, MicroStrategy Business Intelligence software, Microsoft Windows Server platform, Microsoft Windows 7, Microsoft Word 2016, Microsoft Excel 2016, Microsoft Access 2016, Microsoft PowerPoint 2016, Microsoft Project 2010 and Microsoft Visio 2013, but regularly upgrades the environment. HUD's current Technical Reference Model (TRM) can be found on the HUD.GOV website. All deliverables will be in a format compatible with standards listed on HUD's TRM.

C.3 SCOPE

C.3.1 The scope of the task order is to perform the following tasks:

- IT System Steady-State Operational Support services necessary to continue on-going operations of existing IT systems.

- IT System Steady-State Corrective Maintenance services, including application bug fixes, fixes to reports that are inaccurate, correcting business rules that contain bad logic, and/or assistance in completion of scheduled Enterprise Architecture (EA) and infrastructure or software upgrades as identified by OCIO.

- Systems Development, Modernization and Enhancement (DME) services for each of the eGrants systems and subsystems as budgets permit. DME typically includes requirements analysis, design, development, testing, and deployment of changes and enhancements to existing systems to engender enhanced functionality in response to regulatory and statutory changes. All of these services will include coordination with the HUD infrastructure support vendor(s) and, from the Contractor's side, effective project management in alignment with HUD's Project Planning and Management (PPM) process.

C.3.2 HUD current IT systems within scope of this task order include Integrated Disbursement and Information System Online (IDIS OnLine), Grants Management Process (GMP) systems, Disaster Recovery Grant Reporting (DRGR) system, and Electronic Special Needs Assistance Programs System (e-SNAPS). Consistent with Agency and Federal goals of enterprise, shared-solution, and service-based approaches to information technology: services may also be required to consolidate and/or integrate systems, develop interfaces with other systems/services, and expand the existing systems to also support other HUD program areas, and, potentially, support data and requirements from other Federal Government agencies. Each system is described as follows:

C.3.2.1 IDIS Online is a web-based application providing financial disbursement, tracking, and reporting activities for the Office of Community Planning and Development (CPD) formula grant programs. The primary purpose of IDIS Online is to enable HUD grantees to draw program funds and report on the activities outlined in each jurisdiction's Consolidated Plan. IDIS Online provides timely performance information regarding accomplishments achieved with use of program funds, pursuant to the Government Performance and Results Act of 1993 (GPRA) and the specific requirements of the formula programs administered by CPD. IDIS Online supports the following programs: Community Development Block Grant Program (CDBG), Community Development Block Grants Recovery (CDBG-R), HOME Investment Partnership Program (HOME), Housing Trust Fund Program (HTF), Tax Credit Assistance Program (TCAP), Emergency Shelter/Solution Grants (ESG/HESG), Housing Opportunities for Persons with AIDS (HOPWA), Housing Opportunities for Persons with AIDS for competitive grant (HOPWA-C), and Homeless Prevention and Rapid Re-Housing Program (HPRP). IDIS Online also supports the Consolidated Plan Management Process for the grantee's 5-year Strategic Plan and Annual Action Plan submission process. IDIS also supports the HUD Environmental Review Online System (HEROS) module.

C.3.2.2 The Grants Management Process (GMP) initiative provides support to the Department's mission to help the nation's communities meet their development needs; spur economic growth in distressed neighborhoods; provide housing assistance for the poor; help rehabilitate and develop moderate and low-cost housing, and enforce the nation's fair housing laws. CPD is responsible for more than 20 programs, distributing close to $8 billion annually and manages more than 1,000 formula and competitive grantees across the nation. The oversight and management of the grantees, especially "high risk" grantees, is a high priority and critical initiative of CPD.

GMP is one of CPD's primary tools for carrying out its oversight and management function, and monitoring high-risk grantees by direct input from Field Office staff on information resulting from on-site evaluations. GMP currently consists of 3 separate systems: (1) GMP Monitoring Module and (2) GMP Legacy and (3) GMP-R.

The GMP Monitoring Module was developed to support the electronic submission of Exhibits in the *Community Planning and Development Monitoring Handbook 6509.2* used for the monitoring of grantees, based on specific compliance rules and regulations, and complements the GMP business functions. GMP Monitoring Module is a Web-based application developed using a variety of software and/or languages, including: HTML, JavaScript, XML, Java SDK 1.6, J2EE, Glassfish Application Server 3.1, and Oracle 12g. UNIX and servers are used for Intranet Web access. Roles are defined and authorized by the System Security Administrator. Authentication is handled by HUD's SiteMinder servers. The GMP Monitoring Module uses HUD's business intelligence tool – Microstrategy for report generation.

The GMP Monitoring Module also includes the Cross-Program Matrix Reports and Dashboard, which is a report tool used to directly support the goals of the American Recovery and Reinvestment Act of 2009 by providing, for the first time in CPD, an integrated, place-based view of grantee performance and expenditure data by program year.

The re-engineered GMP (GMP-R) will implement a flexible, modern, web-based platform to improve performance and usability and provide compliance to HUD standard Enterprise Architecture. The primary functionality for GMP-R includes user administration, field office work plan and scheduling, technical assistance event capture, and congressional release notification for formula grants.

C.3.2.3 Disaster Recovery Grant Reporting (DRGR) is a web-based grants management application providing real-time financial disbursement, tracking, and reporting activities for HUD's disaster grant programs. DRGR enables grantees to establish strategic plans, citizen participation plans, and action plans; draw program funds; and report on the activities, beneficiaries, properties, matching funds, and other accomplishment data. DRGR provides timely performance information regarding accomplishments achieved with use of program funds, pursuant to the Government Performance and Results Act of 1993 (GPRA) and program regulations. DRGR supports the following programs: Disaster Recovery Grants, Neighborhood Stabilization Programs (NSP1, NSP2, and NSP3), Rural Innovation Fund (RIF), Community Compass Technical Assistance (TA) Grants, and McKinney-Vento (MV) HMIS TA awards.

HUD staff use DRGR to carefully monitor grantee compliance with the terms and objectives of the grant, and track grantee progress. DRGR is an efficient reporting and tracking system for Action Plans and Quarterly Performance Reports from grantees.

Disaster Recovery Grants and other special appropriations address the impact of disasters and other urgent community redevelopment needs. The programs help grantees rebuild and revitalize distressed communities. Grantees include eligible cities, counties, states, and/or Indian reservations, many of which often are also CDBG grantees. The NSP and RIF programs are directly addressing the national foreclosure crisis by stabilizing housing values, revitalizing neighborhoods, and promoting economic development. DRGR is also being used for disbursements and data collection for the Community Compass Technical Assistance program, where contractors under Cooperative Agreements providing training and other services directly to grantees to build their capacity.

C.3.2.4 Electronic Special Needs Assistance Programs System (e-SNAPS), since 1987, the programs authorized under the McKinney-Vento Homeless Assistance Act have been a major source of Federal assistance to States, local government, and nonprofit organizations for meeting the needs of homeless individuals and families. It is widely recognized and accepted that these and other programs designed to assist homeless persons are more effective and efficient when carried out through carefully planned and systematic local approaches, otherwise known as Continuum of Care (CoC) systems.

The Continuum of Care Homeless Assistance competition is one of the Department's highest priority Congressionally-appropriated programs. Funds from this program assist homeless individuals and families to move to self-sufficiency and permanent housing.

Under recent initiatives, the CoC program will continue to fund transitional and permanent supportive housing, Homeless Management Information System implementation, data collection and reporting, supportive services and street outreach. HUD avoids creating homelessness by guaranteeing funding for all eligible CoC renewal grants. This means that the CoC program funding is stable or increases every fiscal year.

The Electronic Special Needs Assistance Program System (C38) (*e-snaps*) is used to capture the data from approximately 400 continuums of care representing approximately 3,500 applicants and 7,000 homeless assistance projects. *HUD* typically requires corrective maintenance effort to update the e-snaps system used to automate the annual CoC / HEARTH competitive grant cycle, including the intake, review, scoring, selection, award, and post-award phases for as many as 9,000 grant applications per year.

C.4 OBJECTIVE

The Contractor shall be responsible for providing substantial value to HUD in the form of technical services to ensure successful business operations, maintenance, and enhancement of these systems supporting CPD and other grant-making offices within HUD. This work includes assisting HUD staff and infrastructure contractors to complete scheduled Enterprise Architecture (EA) and software upgrades as identified by HUD OCIO. The effort includes ensuring that the HUD CPD systems are fully compatible and integrated with current software programs and hardware and fully functional in relation to existing operating environments within HUD and with the external users and business partners outside of HUD.

Contractor personnel assigned to this task order will perform their work at the Contractor's facility. HUD will not furnish office space or equipment for Contractor staff. However, all project review meetings with HUD and Contractor staff will be held at HUD Headquarters, unless instructed otherwise by the HUD TPOC.

C.5 TASKS

The purpose of this task order is to have the Contractor perform services related to the Steady State Operational Support, Corrective Maintenance, and Development / Modernization / Enhancement (DME), of HUDs grants management Information Technology (IT) systems. These systems primarily support HUDs Office of Community Planning and Development (CPD).

Due to the complexity of the task, the contractor should have knowledge of grants management business processes, have the ability to analyze those processes in a holistic and integrated context, and recommend viable cost-effective technical and data solutions that improve program operations, reduce costs, and lower administrative burdens for grantees and HUD staff.

The Contractor shall provide support for the tasks as described below.

C.5.1 TASK 1 – PROGRAM MANAGEMENT SUPPORT (FFP)

The contractor shall provide all necessary personnel, material, equipment, administrative, financial, and managerial resources necessary for the support of this task order. The contractor shall participate in a Government-scheduled Kick-Off Meeting after task order award. Key prime contractor and any subcontractor personnel shall participate in the Kick-Off Meeting. The purpose of this Kick-Off Meeting is to (1) aid both the Government and contractor personnel in achieving a clear and mutual understanding of

all requirements, and (2) identify and resolve potential problems. The contractor shall be prepared to discuss any issues requiring clarification and gather information necessary for the Project Management Plan and Transition Plan.

The Kick-Off Meeting shall include, but not be limited to, the following topics:

- Program Review
- Existing and Planned Applications and Technical Initiatives
- Personnel and Physical Security Issues

The Government and contractor will schedule the Kick-Off Meeting. It is anticipated that the Kick-Off Meeting will be NLT 5 working days after task order award. The contractor shall begin preparation of the Updated Transition Plan Immediately following successful completion of the Kick-Off Meeting.

C.5.1.1 PROJECT MANAGEMENT PLAN

The contractor shall develop and maintain throughout the task order period of performance, a Project Management Plan (PMP) that shall be used as a foundation for information and resource management planning. The contractor shall deliver the PMP to the Government within 15 work days after Task Order award.

The PMP shall include, but not be limited to, the following:

- Status of current and planned tasks and subtasks
- Base schedule overlaid with actual schedules, for each task
- Project Organization
- Project Transition Processes and Schedule
- Work Breakdown Structure (WBS)
- Process Management and Control
- Overall Organizational Structure
- Project Responsibilities to include process flowcharts for all major tasks
- Task dependencies and interrelationships
- Contractor personnel assignments and duration (Staffing Plan)
- Updated Deliverable Schedule (based on solution)
- Deliverables (draft, interim, final, etc.),
- Contingency Plans (where appropriate),
- Contractor travel information
- Quality Control plan
- Risk Management plan
- Subcontract Management (organization of personnel, software and hardware)
- Monitoring mechanisms including Program Metrics
- Automated Tools, Techniques, and Methods

The contractor shall keep the PMP up-to-date, be accessible electronically at any time, and be prepared to brief any PMP content to the Government at short notice (within 24 hours). The PMP shall be used as a foundation for the Status Report.

C.5.1.2 MONTHLY PROGRESS REPORTS

The Contractor shall conduct monthly In-Progress Reviews (IPR) as agreed to at the Task Order Kick-Off meeting. The Contractor shall prepare and deliver the monthly progress report the first week of each month, 24 hours prior to the scheduled meeting. The IPR shall discuss at a minimum, the following topics:

- Agenda/Task Review and schedule/Action Items Past and Future
- Review by Task
- Schedule by Task
- Previous Month's Activities by task
- Planned Activities for next month by task
- Current and Unresolved Issues
- Actions required by HUD CPD

C.5.1.3 MONTHLY BRIEFINGS

The Contractor shall be required to prepare and present briefings to the Government on the results of efforts undertaken under this Task Order.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.1.3	Prepare and present briefings to the Government on the results of efforts undertaken under this Task Order	Monthly Briefings	10th Day of the Month

C.5.2 TASK 2 – STEADY STATE OPERATIONAL SUPPORT (FFP)

NOTE: STEADY STATE OPERATIONAL SUPPORT INCLUDES IDIS ONLINE, GMP, DRGR AND e-SNAPS SYSTEMS SUPPORT.

Consistent with OMB Circular A-11 and HUDs Capital Planning and Budget processes the objective of Steady State Operational Support is to ensure complete, continuous and successful business operations for all of the CPD systems. Steady State Operations (SS) means maintenance and operation of current IT systems at current capability and performance levels. Project Management support should be a minimal portion of Steady State Operational Support.

C.5.2.1 APPLICATION SOFTWARE SUPPORT

The Contractor shall provide Information Technology (IT) support to the HUD user community covered by this TOR. The required IT support includes, but is not limited to:

(a) Identify, troubleshoot, implement and resolve HUD application software issues on HUD servers for the systems specified in Section C.3. Typically, a user will call the HUD National Help Desk or HUD Exchange Ask-A-Question with a problem, and IT support personnel will document and track the issue from initial call-in to final resolution. The contractor shall troubleshoot the problem from remote client locations. There are approximately 15 trouble calls per week on average. The current volume of trouble tickets outside the core hours of 6:00AM to 6:00PM ET is negligible.

(b) Coordinate with HUD Infrastructure contractors and HUD Test Center the installation of business application software on servers managed by HUD.

User Support Requirements: The Contractor shall develop a "triage" approach to user support such that VIP users have priority over general users, and issues impacting the most users have priority over issues impacting the fewest users. The Contractor shall constantly monitor his/her trouble ticket queue, and will call the customer within 2 hours of trouble ticket report receipt. The Contractor shall provide the user with an estimated time of when response to the problem can be initiated. If the response cannot be initiated within 1 business day (due to current backlog), the Contractor shall inform the Government lead, who will then either adjust the technician's work queue, or will interface with the customer to explain the delay.

The Contractor shall NOT resolve issues by telling the customer to call another division/entity to request assistance for resolving an IT issue that falls within the scope of this TOR. The Contractor shall make all calls/coordination necessary to resolve IT issues as part of the responsibility to fully manage resolution of the issue. The triage support is for software and hardware; however, over 90% of all issues are software related. Triage describes an approach by which Contractor shall sort out who gets taken care of first, and/or which issue gets taken care of first in event that there are multiple customers and/or issues to take care of at the same time.

C.5.2.2 DAILY SYSTEM CHECK

The Contractor shall conduct a daily check on all systems covered by this task order to verify that they are operational. Send a status report to the TPOC daily by 9:00am each Federal business day. Identify each failure/issue and escalate as needed. Identify items in which the performance was outside the threshold for acceptable performance.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.2	Provide a Daily System Check status report to the TPOC	Daily System Check Status Report	Daily by 9:00am each Federal business day.

C.5.2.3 HELP DESK TIER 2 MONITORING

For Help Desk Tier 2 Monitoring, the Contractor shall access and monitor the queues related to the systems covered in this task order in the standard ticket tracking system used by HUD, OCIO, and the HUD-wide infrastructure contractor. At any time during the performance of this task order, upon HUD adoption of an enterprise-wide ticket tracking system for applications, the Contractor shall use the enterprise-wide tracking system within six months as directed by the HUD TPOC.

C.5.2.4 HELP DESK TIER 2 TECHNICAL SUPPORT

The Contractor shall provide Help Desk Tier 2 technical support to the Help Desk Tier 1 consisting of the HUD National Helpdesk and HUD Exchange Ask-A-Question, and/or HUD TPOC. The Contractor shall use a ticket tracking system (See Section C.5.2.20) to intake, log, and track all Tier 2 tickets through resolution. The Contractor shall log tickets within 3 hours during normal business hours. The Contractor shall respond to all ticket requests which can include, but are not limited to, technical issues, system access problems and application questions (i.e., user cannot enter data into a specific field, screen is not loading, etc.), error messages, permission issues, performance issues, batch process issues, Electronic Data Interchange (EDI) issues, etc. The Contractor shall manage all open Tier 2 Help Desk tickets assigned to the Contractor and as requested by the HUD TPOC produce a report on the status of all tickets for a given time period.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.4	Produce a report on the status of all tickets for a given time period.	Status Report on Tier 2 Help Desk Tickets	10th Day of the Month

C.5.2.5 ANALYZE AND DIAGNOSE

The Contractor shall analyze and diagnose Tier 2 tickets, identify problematic components, re-create or test the problem, perform a root cause analysis, and provide a description of the problem. The Contractor shall provide an initial analysis of all Tier 2 tickets within one business day. The Contractor shall recommend a strategy or strategies to the TPOC that will fix or address the problem consistent with the priority and complexity.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.5	Recommend a strategy or strategies to the TPOC that will fix or address the problem	Strategy(ies) to the TPOC	One (1) Business Day

C.5.2.6 IMPLEMENT

The Contractor shall implement the HUD TPOC-approved strategy to fix or address the problem provided the work is within the scope of Task 3 (Steady State Operational Support). If the problem will require a HUD Application Release Tracking System (HARTS) release to implement, the ticket shall be categorized in the ticket tracking system as such, and must be addressed via Corrective Maintenance or DME tasks.

C.5.2.7 NOTIFICATION AND COORDINATION

The Contractor shall send information and respond to requests for information concerning the cause of the problem to the organization/resource best equipped to address the problem; for example, HUDs infrastructure support contractors for hardware/network issues.

C.5.2.8 TROUBLESHOOT

The Contractor shall act as Liaison with IT and Infrastructure production support staff for troubleshooting system problems. The Contractor will notify the HUD TPOC of the resolution of the problem and notify the CPD program area representative after resolution. Problem resolution may require a coordinated effort with one or more other groups to resolve.

C.5.2.9 MANUAL TRANSACTIONS

The Contractor shall perform manual transactions in the event of an internal software issue, data correction, or the failure of an internal batch process, e.g., data correction scripts, backups, or other tasks

to ensure the continuity of business operations. Upon HUD approval, the Contractor will follow OCIO procedures to have the tasks executed in production. This also includes configuration changes, Online Analytical Processing (OLAP) refreshes, data updates or downloads, backups, or other pushes that can be implemented to or from production without a HARTS release.

C.5.2.10 MANUAL DATA CORRECTIONS/SQL PROCESSING USING FILE INPUT (SPUFI)

The Contractor shall write and test data correction scripts to make data corrections in response to input from HUD TPOC/CPD staff/Tier 1 help desk. Upon HUD approval, the Contractor shall follow OCIO procedures to have the scripts executed in production. The Contractor shall use proactive quality control processes and testing to ensure data correction scripts are accurate and do not cause unintended consequences. The Contractor shall log all data correction scripts to ensure adequate audit trail should the system be audited.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.10	The Contractor shall log all data correction scripts	SPUFI/Data Correction scripts	1 Hour – 2 Weeks Depending on Priority (See Section F.3)

C.5.2.11 WEEKLY REPORT

The Contractor shall provide a weekly status report to the HUD TPOC summarizing current activities, accomplishments, and issues within the program related to all systems covered in this task order to include the following:

- Agenda/Task Review and schedule/Action Items Past and Future
- Review by Task
- Schedule by Task
- Previous week's Activities by task
- Planned Activities for next week by task
- Current and Unresolved Issues
- Actions required by HUD CPD

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.11	Provide a weekly status report to the HUD TPOC	Weekly Status Report	Weekly

C.5.2.12 DATA REFRESH

The Contractor shall populate the User Acceptance Testing (UAT) and Development (DEV) environments with live production data once per month each, or as requested by the HUD TPOC.

C.5.2.13 AD-HOC QUERIES

The Contractor shall provide support for ad-hoc reports including determining report needs and system capabilities; defining report requirements and format; generating and providing the report; and providing support for the Integrated Disbursement & Information System (IDIS) Data Download function, which allows users to download raw data for off-line analysis or ad-hoc reporting. Ad hoc reports can range from very focused to very broad, such as: querying for a single grantee name that matches one set of criteria; producing joined tables of financial transactions across specific date ranges, for specific grantees, limited to certain programs, or other factors; producing financial data sets for further analysis or financial modeling performed outside of the system (such as Accrual Estimating), or exporting dumps of large data sets matching criteria as specified in the request.

Ad hoc queries can originate from OIG Audit requests, requests for information from Congress or HUD Leadership, Freedom of Information Act requests from the public, or when a 'canned' report is not available to produce the data.

C.5.2.14 FINANCIAL SYSTEM INTERFACE

The Contractor shall monitor system interfaces and automated data transfers at least once daily to ensure that transactions are occurring as designed. Current interfaces include:

- Electronic Data Interchange (EDI) - IDIS Online interface
- IDIS Online LOCCS interface
- IDIS Online-Geocode Service Center interface
- Disaster Recovery Grant Reporting (DRGR) LOCCS interface
- DRGR - Geocode Service Center interface
- Grants Management Process (GMP) IDIS OnLine interface
- GMP - OCFO Financial Data Mart interface
- IDIS OnLine CPD Maps interface
- IDIS OnLine - DRGR interface

If interface processes and/or automated data transfers fail, the Contractor shall be responsible for contacting appropriate resources to troubleshoot and resolve interface issues.

The Contractor shall access LOCCS, or succeeding financial system, on a read only basis, as needed for the following purposes:

- Check on the set-up of banking information for a grantee and its grants in LOCCS;
- Research disbursement issues that arise by comparing disbursement information in LOCCS to what is in the CPD system to determine whether a problem is due to a delay in payment, a problem within LOCCS, or a problem within the CPD system; and
- Assist HUDs OCFO in resolving issues regarding improper set-up of grantees and their grants in LOCCS or the modification of such set-up information.

C.5.2.15 LOAD DATA FILES

The Contractor shall load data tables that are provided by CPD for loading to systems in a pre-defined format. Examples of typical data loads are adding new Fiscal Year grants into IDIS Online, or adding a new list of Low-Mod Census Tracts to IDIS OnLine, data required for GMP risk assessment, or data required for GMP Congressional Releases. The Contractor must verify that these tables are correct (i.e., no duplicates,

no incomplete records, etc.). This especially pertains to IDIS Online and GMP, but is not limited to these systems.

C.5.2.16 CONTINUITY OF OPERATIONS (COOP)/DISASTER RECOVERY (DR) DRILLS

The Contractor shall participate in testing the existing CPD systems Contingency Plans and/or participating in Disaster Recovery Drills, which ensure CPDs ability to operate and maintain systems and business operations in the event of a terrorist attack, natural disaster, or other significant disruption. Typically, Contingency Plan tests/Disaster Recovery Drills occur once per year, per system. In the event of a COOP declaration, the Contractor shall execute the Contingency Plan per the direction of the HUD TPOC.

C.5.2.17 SECURITY UPDATES

Contractor shall coordinate with HUD CPD Information Systems Security Officer (ISSO) to complete National Institute of Standards and Technology (NIST) Security Control Updates as part of annual Security Control Self-Assessment and to implement a new Revision in the NIST 800-53 standard, in the Cyber Security Assessment and Management (CSAM) tool. Updates include security controls and implementation statements that comprise the System Security Plan (SSP), vulnerability scan support, and Assessment Results.

The Contractor shall provide technical input to HUD in responding to Plan of Action and Milestones (POA&M) items by identifying the system changes that may be required to correct and address security weaknesses.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.17	Update the security controls and implementation statements in the CSAM tool that comprise the System Security Plan (SSP).	System Security Plan	Annually

C.5.2.18 MEETING PARTICIPATION

The Contractor shall participate in meetings pertinent to this task order that discuss the operations/supporting infrastructure of the systems of this portfolio including conference calls, Integrated Project Team (IPT) meetings, HITS Requests Management Board (HRMB) meetings, Configuration Change Management Board (CCMB) meetings, Data Steward Advisory Board (DSAG) meetings, Steady State Operational Support meetings, TIGER team meetings, Contract meetings, and other meetings as requested by the HUD TPOC.

The Contractor shall prepare and deliver meeting minutes within three (3) business days of the meeting. The meeting minutes should include a summary of the meeting, action items, assignments, and pending matters.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.2.18	Prepare and deliver meeting minutes	Meeting Minutes	Within three (3) business days of the meeting.

C.5.2.19 INFRASTRUCTURE UPGRADE TESTING

The Contractor shall conduct analysis and testing of the impact of HUD-wide datacenter infrastructure or software upgrades on the systems of this portfolio and support the HUD infrastructure contractor during the upgrades. The Contractor shall coordinate with OCIO staff, the OCIO infrastructure contractors, and CPD staff during testing and implementation. Examples may include software patches/upgrades (such as MicroStrategy), operating system patches/upgrades, core database version upgrades (such as Oracle), single sign-on software upgrades/replacements, or other infrastructure maintenance impacting the systems within scope of this task order. If the upgrade will require application system modification and a HARTS release to implement, the effort must be addressed via Corrective Maintenance or DME Task.

C.5.2.20 TICKET TRACKING

The Contractor shall maintain a comprehensive and searchable ticket tracking system that categorizes all IT system issues by multiple attributes. The tracking system should categorize and fully document issues, such as code defects or requests for enhancements. The tickets should be prioritized and classified as development, modernization and enhancement; operational maintenance; or corrective maintenance. The tracking system should provide a level of effort or cost estimate to correct the problem. The Contractor shall allow select CPD and OCIO staff to access this system, or provide regular reports or exports, in order to assess the overall status of each system and/or project and each documented issue, to discuss and capture new issues, and to prioritize issues to fix.

C.5.2.21 SOFTWARE FUNCTIONAL/OPERATIONAL

The Contractor shall ensure that all existing application software is fully functional and operational. The Contractor shall work with the HUD infrastructure support contractors to resolve issues related to software applications. The Contractor shall start (bring up) and stop (shut down) various on-line systems when necessary for all environments, as required and permitted by HUD. As required, the Contractor shall maintain and provide detailed, up-to-date technical instructions to the infrastructure team on how to start and stop systems and services, how overnight transactional processes operate (e.g. Online Analytical Processing [OLAP] refresh, LOCCS transaction, autosys jobs, cron jobs, authentication), and other essential information on basic system dependencies and technical configurations.

C.5.3 TASK 3 - TRANSITION SERVICES (FFP)

C.5.3.1 TRANSITION PLAN

Within 10 days of Task Order award, the Contractor shall prepare and deliver an Initial Transition Plan recommending the steps necessary to migrate from existing Government and contractor operations to the newly awarded contractor operations. The plan shall be defined in detail by specific task, deliverable, and milestone to ensure an orderly and complete transition. The transition shall be executed as quickly as possible with minimum disruption to operations and customer service. The Government will review the

Initial Transition Plan, and provide comments to the Contractor that will be addressed in the Final Transition Plan. The Final Transition Plan is due within 5 days of the receipt of the Government's comments.

C.5.3.2 TRANSITION-IN SERVICES (FFP)

The successful contractor shall perform transition-in services for no longer than 25 days after kick-off meeting necessary to provide a smooth and efficient transition from the existing contractor without any interruption or degradation in any services.

The contractor (other than the incumbent) shall prepare and submit a transition plan (SEE SECTION C.5.3.1) detailing the plan, staffing, and other information necessary to seamlessly transition from the existing task order without interruption or degradation in any services.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.3.2	Perform transition-in services	Transition-In Plan	• Draft Plan during the Kick-off • Final Plan 14 days after kick-off meeting

C.5.3.3 TRANSITION-OUT SERVICES (FFP)

The contractor shall perform all services necessary to transition the work performed under this task order to the Government or another contractor at the conclusion of this task order. The transition shall be performed without any interruption or degradation in any services. The contractor shall perform all transition-out services necessary to provide a smooth and efficient transition.

Within 180 days of Task Order expiration, the Contractor shall prepare and deliver a Transition-Out Plan that recommends the steps required to transition network operations from the Contractor back to HUD TPOC and/or the follow-on service provider at the conclusion of the Task Order. This plan will include provisions for the disposition of any contractor proprietary tools that may have been installed to support network operations such that HUD CPD and/or the follow-on service provider may remain fully operational up to the standards established before exit.

The Transition Plan shall address, at a minimum, the following areas:

Transition of Program Management Support and Other Personnel
Transition of Task Requirements in the task order
Asset Transfers [hardware, software, GFP]
Resource Requirements [personnel and budget]
Security Clearance Actions and Status
Transition Milestones and Timeline
Risk Mitigation Practices

The Contractor shall use best commercial practice for formatting deliverables under this task order.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.3.3	Perform all transition-out services	Transition-Out Plan	90 Days Before Task Order Performance

C.5.4 TASK 4 - CORRECTIVE MAINTENANCE (CM) (LH)

CPD requires a continuing capability to implement changes to all components of CPD Grants Management Systems. The contractor shall maintain the capability to implement such changes on an ongoing basis at the direction of the TPOC.

The contractor must organize its activities for maintenance according to the framework provided by HUD's PPM. At any one time, CPD typically has a backlog of application software change requirements. New maintenance requirements are added through the change control board process, and priorities will change. The backlog is therefore dynamic. CPD will identify, prioritize, and approve requests for maintenance through the change management process.

The contractor shall support refinement of requirements as a basis for estimate; estimate cost, effort, and schedule; and implement through a rational software development process all maintenance requirements approved by government through the change control board process.

The Contractor shall perform Corrective Maintenance actions that encompass modifications to fix application problems caused by design, logic, coding, development, and/or infrastructure errors. This type of maintenance may be triggered by an explicit service desk ticket, problem report, or trouble call and involves errors that must be addressed immediately as indicated in Steady State Operational Support. Corrective Maintenance also encompasses modifications that fix application inconsistencies caused by regulatory changes to existing programs. The Contractor shall perform all project phases and activities required to build, test and deploy all Corrective Maintenance changes as necessary to fix the application problems whenever they occur.

C.5.4.1 CORRECTIVE MAINTENANCE TASK SPECIFICS

NOTE: CORRECTIVE MAINTENANCE INCLUDES IDIS ONLINE, GMP, DRGR AND e-SNAPS SYSTEMS SUPPORT

The Contractor shall provide corrective maintenance for CPD Systems. Corrective maintenance is necessary to keep an asset functioning as designed during its operations and maintenance phase of an investment. Maintenance costs include costs needed to sustain an IT asset at the current capability and performance levels including corrective software changes, maintenance of existing system interfaces; and code or other modifications to comply with mandated infrastructure upgrades. Examples of this these types of maintenance are environment changes or infrastructure upgrades requiring modifications to application code or database structure; load or other performance issues requiring code changes; updates to existing functions within the corresponding IT system due to the evolution of business rules or regulations; or system interfaces that are not functioning as designed.

Corrective Maintenance consists of the action(s) taken to restore a failed system to operational status. This usually involves replacing or repairing the software component that is responsible for the failure in the

system. Corrective maintenance is performed at unpredictable intervals. The objective of corrective maintenance is to restore the system to satisfactory operation within the shortest possible time.

Code changes or other fixes conducted under Corrective Maintenance are of the nature that require a HARTS release (as defined in C.5.4.7) or application configuration change to implement into Production, e.g., cannot be accomplished via data correction scripts.

Issues that require Corrective Maintenance shall include the following:

- The Contractor shall develop and deploy to production fixes for a backlog of IDIS, DGR, and GMP maintenance items such as known defects, break fixes, or code bugs. HUD will focus on correcting the highest business priority items first. The Contractor shall provide defect remediation and 'break-fix' for CPD Systems. Examples of these types of corrective maintenance items include:
  - Calculations that generate incorrect totals
  - Data screens that omit a required entry or store an entry in the improper location
  - Improper logic in business rules
  - Resolution of aborted programs or error messages
  - Application configuration issues
- The Contractor shall provide maintenance for the e-snaps system to implement the routinized system configurations to Grantium that operationalize annual changes from the Continuum of Care/Homeless Assistance Grant Notification of Funding Availability to automate the competitive grant cycle.
  - The Contractor shall develop and deploy to production configurations of the Grantium-based e-snaps system in order for HUD to automate annual CoC grant program competitions.
  - This includes the full competitive grants management life cycle from Intake of over 8,000 online applications annually through review, selection, award, and accomplishment reporting.
  - Tasks include functional and system requirements through design, development, testing, and publication or release to production.
- The Contractor shall perform maintenance to CPD Systems to respond to or comply with FISMA, OMB Circular A-123, FFMIA, FMFIA, or other applicable information system compliance frameworks, laws, rules, and requirements. For example, HUD may need to perform maintenance to CPD Systems to resolve Plan of Actions and Milestones established by routine FISMA security reviews or vulnerability scans.
- The Contractor shall perform maintenance to CPD systems required to ensure alignment of the systems' existing business rules, screens, reports, or data elements to revisions in program regulations, policies, or guidance.
- Contractor shall ensure continuing operations for software version/platform/infrastructure changes (e.g. operating system upgrades, Microstrategy upgrades, PrimeFaces upgrades, Weblogic upgrades, or Oracle upgrades) when the impacted business application/system would otherwise not work as a direct result of that version/platform/infrastructure change. For instance, if OCIO determines all systems must upgrade to the latest version of Oracle, and that change requires code changes that cannot be implemented without a HARTS release or application configuration changes, then the work is categorized as Corrective Maintenance. However, version/platform/infrastructure changes that can be accommodated without a HARTS release or application configuration change are considered Steady State Operational Support.
- Contractor shall ensure continuing operations for CPD Systems when the impacted business application/system would otherwise not work as a direct result of interfacing systems changes. For instance, if an interfacing system migrates to a cloud service, and that change requires CPD System code changes that cannot be implemented without a HARTS release or application configuration changes, then the work is categorized as Corrective Maintenance.

The Contractor's efforts for the above shall include:

1. **Requirements –** Analyze the business requirements to document the functional, data, and system requirements. Conduct requirements sessions with CPD program areas. Create and maintain the Requirements Traceability Matrix.
2. **Design –** Design, prototype, wireframe, or otherwise translate all requirements into system modifications, including but not limited to: functional requirements, use cases, system screens, reports, databases, system rules, and functions**.** This task requires continuous requirements refinement with CPD program areas. CPD program areas to sign off on design.
3. **Development & Testing –** Complete development and coding of system modifications. Perform testing such as unit testing, system and integration testing, and regression testing. Maintain the Requirements Traceability Matrix to track requirements through testing.
4. **UAT -** Provide technical support to HUD's User Acceptance Testing (UAT) including deployment new build to HUD UAT environment, delivering UAT test plan, test scripts, test data, and test report to CPD testers.
5. **Section 508 Compliance –** Ensure System meets the applicable accessibility standards of the Section 508 of the Rehabilitation Act stated in Section 6.C of the TOR.
6. **System Security efforts and tasks** – Ensure System meets the applicable information system security standards specified by HUD OCIO Security, Federal NIST Standards, and HUD ADP Security. Throughout implementation, assess the business, system, functional requirements for changes to the disposition of the system security. For any required updates, maintain the System Security Plan and the Implementation Statements using HUD's CSAM System.
7. **Deployment** – Perform Quality Assurance activities. Prepare the HARTS release package and submit to the HUD Test Center. Perform support activities for the Test Center and HUD Infrastructure to complete the software release(s) deployment to production. This includes troubleshooting, providing technical support or system expertise, and spot testing to ensure successful deployment.
8. **EVM** – Provide and update project schedule that includes Performance Measurement Baseline and Earned Value Management (EVM) information (including "% Complete", Planned and Actual Start dates, Planned and Actual Finish dates, Planned and Actual Costs, and resource names).
9. **Deliverables –** Deliver **updates to or create new** the following documents in final version to reflect effort above, as approved by HUD TPOC. Where applicable, documents shall conform to HUD Project Planning and Management (PPM) Version 2 artifact template standards:
    a. Project Work Plan / Performance Measurement Baseline
    b. Updates with actuals (dates, cost, effort) to Project Work Plan, delivered Bi-weekly
    c. Project Status reporting
    d. Maintain Requirements Traceability Matrix (RTM)
    e. Maintain Change Control Register / Log (CCR/CCL) reported bi-weekly
    f. Maintain a Risk Register reported bi-weekly
    g. Perform updates to Requirements Definition Document
    h. Deliver Test Scripts / Scenarios
    i. Maintain Test Results Reports
    j. Perform updates to Test Plan
    k. Perform updates to Implementation Plan
    l. Perform updates to User Manual and information in Online context-based Help
    m. Perform Updates to Interface Control Document
    n. Perform updates to Operations & Maintenance Manual
    o. Perform updates to Technical Design Document
    p. Perform updates to Data Dictionary

Deliverable(s):

The contractor shall update all PPM and other system documentation to reflect all changes implemented to production under Corrective Maintenance work. Details about the PPM deliverables can be found at this website: https://portal.hud.gov/hudportal/HUD?src=/program_offices/cio/ppm/PPMV20Artifacts.

Section	Task	Description of Deliverable	Due Date
C.5.4.1	Update all PPM and other system documentation to reflect all changes implemented to production	PPM and other system documentation	Update at System Release

C.5.4.2 PROJECT MANAGEMENT

The Contractor shall provide project management for Corrective Maintenance efforts to ensure software developers and other technical staff follow project plans established in C.5.4.1. HUD will closely monitor the cost and schedule of Corrective Maintenance tasks to minimize potential for cost and/or schedule variances. HUD encourages the Contractor to follow the work process flow, methodology, procedures, deliverables and best practices that conform to the standards dictated by the Project Management Body of Knowledge (PMBOK) Guide, Project Management Life Cycle defined and published by the Project Management Institute (PMI).

Corrective Maintenance tasks shall follow HUD's Project Planning and Management (PPM) process. Details about the PPM process can be found at this website: http://portal.hud.gov/hudportal/HUD?src=/program_offices/cio/ppm/PPMV20HOME

HUD encourages the use of an agile development methodology by tailoring the PPM to enable the planning, development, and delivery of useable functionality within 6-9 month increments.

C.5.4.3 CONFIGURATION MANAGEMENT PLAN

The Contractor shall update the existing Configuration Management (CM) Plan or create the Configuration Management Plan if it does not exist. The plan shall address the following:

- Configuration Management: Configuration management is a set of processes and procedures to identify configuration items, baseline configuration items and control changes to the configuration baseline. All changes must be evaluated and approved by the Change Control Board (CCB) in accordance with the procedures. The CCB constitutes HUD staff and HUD staff are responsible for determining priority and sequencing for releasing fixes and enhancements.
- Change Management: Change management identifies and defines steps for initiating software changes that may alter the current system or current requirements. The Contractor will maintain a Change Control Register (CCR) for each system to log and track all change requests and requests to implement new requirements.
- Release Management: Release management consists of specific processes that manage the risks associated with each release. The processes address the coordination and responsibilities of all functional areas affected by a release.
- Problem Tracking: Issues are thoroughly tracked and are sometimes submitted to the CCB for evaluation and approval of the proposed resolutions.

- Configuration Management Tools: The Contractor will use HUD's standard Configuration Management tools as part of the Configuration Management process.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.3	Create or update the existing Configuration Management (CM) Plan	Configuration Management Plan	Annually

C.5.4.4 QUALITY ASSURANCE PLAN

The Contractor shall provide a Quality Assurance (QA) Plan (QAP) that conforms to the minimum standards as identified in the Quality Assurance guidelines identified in the HUD PPM. The Contractor shall identify a team that is dedicated to Quality Assurance and ensure that only high quality products and services are delivered to HUD.

HUD will use a Quality Assurance Surveillance Plan (QASP) as part of the Government's efforts to monitor contractor performance. See Attachment 1.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.4	Provide a Quality Assurance (QA) Plan (QAP)	Quality Assurance Plan (QAP)	Annually

C.5.4.5 LESSONS LEARNED

The Contractor shall maintain a Lessons Learned document that conforms to the minimum standards as identified in the HUD PPM, updating it as part of Project closeout. The Contractor shall disseminate lessons learned to the team after each release, and make recommendations as appropriate to HUD to increase the quality of future deliverables and improve reliability and efficiency of systems.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.5	Maintain a Lessons Learned document and disseminate lessons learned to the team after each release	Lessons Learned Document	Update at System Release

C.5.4.6 SECURITY PACKAGES

All Project Work Plans (PWPs) shall contain a task identifying each IT Security document update, as well as a task or tasks identifying IT security-related coding or system modification. The Security Package includes the following documents:

- Risk Assessment
- System Security Plan in government cybersecurity tool
- Contingency Plan

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.6	Maintain a Risk Assessment document that establishes the security disposition.	Risk Assessment	Annually
C.5.4.6	Maintain a Contingency Plan for system recovery and reconstitution.	Contingency Plan	Annually
C.5.4.6	Update a System Security Plan based on system changes implemented in the Release.	System Security Plan	Update at System Release

C.5.4.7 HARTS RELEASES

Once HUD has performed User Acceptance Testing (UAT) and final system performance load and stress testing has been completed successfully, the Contractor shall submit the approved work products as a HUD Application Release Tracking System (HARTS) release package, along with all associated documentation required for the HARTS release.

Under the HARTS process, the HUD Test Center reviews and tests each HARTS release package prior to deployment. Once approved, the HUD infrastructure team performs the deployment to production. The Contractor shall provide technical and management support to both the Test Center and the HUD infrastructure team for the testing and deployment processes to ensure successful release.

When the HUD IT Project Manager verifies that UAT is successfully complete, the Contractor shall prepare and submit a HARTS release package, which includes the technical release instructions, application scripts, schedule, test plan, test results and evaluation report, checklist for release acceptance process, software configuration management and release process (Serena Dimensions instructions), database scripts for the creation of test user IDs and passwords, and documentation to verify compliance with Section 508 requirements. The Contractor shall prepare the system release request in HUD's HARTS system and provide the necessary modified software code products. The Contractor shall prepare and manage Release Notes to document the fixes/ changes/ enhancements included in each system release and support the release deployment process using HUD's standard Configuration Management tool, currently Serena Dimensions.

Under the HARTS process, the HUD IT Project Manager shall determine if the release is categorized as a regular or emergency release. Current HUD policy specifies a lead-time of 17 business days for regular releases and 4 business days for emergency releases.

The Contractor shall be responsible for coordinating release testing with the HUD Test Center, including copying all relevant files into the Test Center's realignment testing environment used to simulate the production environment for each release. The Contractor shall support the HUD Test Center staff, OCIO staff, and/or HUD infrastructure contractors during the installation and configuration of software upgrades and application system releases as required. The Contractor shall also follow-up to provide Verification and Validation of the intended results within two business hours after the release installation has been completed, to verify that the installation was completed correctly.

Code changes, configurations, and other contents of the software delivered in a HARTS release shall contain zero defects.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.7	Contractor shall submit the approved product (completed User Acceptance Testing (UAT), final system performance load and stress testing) as a HUD Application Release Tracking System (HARTS) release request, along with all associated documentation required for the HARTS release	HARTS Release Package	Per System Release

C.5.4.8 TESTING

The Contractor shall conduct functional, unit, system/integration, regression, smoke, load/-performance and/or stability tests as applicable as part of their quality assurance plan for each system release. Each applicable test shall be identified as a milestone in the Work Breakdown Structure (WBS). Use of industry-standard automated testing software is strongly encouraged. The software shall be flexible to be able to handle changes and requirements of any complexity; allow for the recording and playback of scripts, along with the ability to maintain an ongoing test data suite; thus ensuring 100% of the requirements are met and that regression testing will fully test all previous functionality. The amount and type of testing shall be commensurate with the size, scope, and risk of the specific release as mutually agreed upon by the Contractor and the HUD TPOC.

The Contractor shall assist HUD staff in coordinating User Acceptance Testing (UAT) with impacted stakeholders, as per Section C.5.4.10 below.

C.5.4.9 REQUIREMENTS TRACEABILITY MATRIX (RTM)

The Contractor shall create and update a Requirements Traceability Matrix (RTM) as required. The RTM is typically a direct input to the Requirements Definition Document. The RTM shall clearly link the new and/or changed requirements to where and how they have been implemented in the system. The RTM shall

provide backwards and forward traceability, meaning the RTM documents each requirement from its source through definition, analysis, design, testing, acceptance, and deployment.

The size and level of detail of the RTM shall be commensurate with the size, scope, and risk of the issues being fixed for each corrective maintenance release.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.9	Create and update a Requirements Traceability Matrix (RTM)	Requirements Traceability Matrix (RTM)	Project Initiation and throughout the Life of the Project

C.5.4.10 USER ACCEPTANCE TESTING (UAT)

HUD will perform acceptance testing of the new or modified CPD systems code and/or database changes/additions after successful completion of Contractor testing. The Contractor shall prepare or update a User Acceptance Test (UAT) plan and test scenarios/scripts for users to follow during the initial structured portion of the UAT (following structured testing the users are encouraged to conduct their own free-form testing). The Contractor shall assist HUD during the preparation and execution of the acceptance test by establishing test data and maintaining the test environment. The Contractor shall provide the draft version of all documentation, including the Requirements Traceability Matrix (RTM), which shall be delivered with the final product at the time of the initiation of the UAT period. The RTM shall clearly link the new and/or changed requirements to where and how they have been implemented in the system, to assist the users during testing. The Contractor shall correct any errors identified by the User Acceptance Test team. The Contractor shall document the results of the testing in the Test Results Report.

Upon receipt of the report, HUD will examine the test results and make a determination as to the readiness of the new or modified CPD systems code and/or database changes/additions to be released into the production environment. HUD will certify the planned release under one of the following categories:

- It is virtually error free and should be released into production.
- Errors still exist that should be addressed, however, a decision could be made that either;
  - the release can proceed intact and the errors will be corrected and implemented through a subsequent release or,
  - the release can proceed but the portions determined defective will be removed from it and errors will be corrected and implemented through a subsequent release.
  - It has major shortcomings and should not be released into production at this time. Instead, it should be returned for further development and re-testing.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.10	Prepare or update a User Acceptance Test (UAT) plan	Test Plan	2 Weeks prior to start of User Acceptance Testing
C.5.4.10	Test scenarios/scripts for users to follow during the initial structured portion of the UAT	Test Scenarios/Scripts	2 Weeks prior to start of User Acceptance Testing
C.5.4.10	Provide the draft version of all documentation, including the Requirements Traceability Matrix (RTM), which shall be delivered with the final product at the time of the initiation of the UAT period.	Test Results Report	2 Weeks upon conclusion of User Acceptance Testing
C.5.4.10	Document the results of the testing in the Test Results Report.	Test Results Report	3 Business Days upon conclusion of User Acceptance Testing

C.5.4.11 INTERFACE CONTROL DOCUMENT

The Contractor shall maintain an Interface Control document that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Contractor shall use the Interface Control document to catalog system identification, interface description (such as transactions), and the interface requirements for those information systems that interface with each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.11	Maintain an Interface Control document recording all system interfaces	Interface Control document	Update at System Release

C.5.4.12 OPERATIONS & MAINTENANCE MANUAL

The Contractor shall maintain an Operations & Maintenance Manual that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Operations & Maintenance Manual shall detail system and operational procedures, inventories, and inputs / outputs required for the performance and operation of each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.12	Maintain an Operations & Maintenance Manual recording system and operational procedures, inventories, and inputs / outputs required for the performance and operation of each CPD System.	Operations & Maintenance Manual	Update at System Release

C.5.4.13 TECHNICAL DESIGN DOCUMENT

The Contractor shall maintain a Technical Design Document that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Technical Design Document shall detail system architecture and design (data, user interface, security) each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.13	Maintain a Technical Design Document detail system architecture and design (data, user interface, security) for each CPD System.	Technical Design Document	Update at System Release

C.5.4.14 DATA DICTIONARY

The Contractor shall maintain a Data Dictionary that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Data Dictionary shall record meta data required to provide system, functional, and business context to the data elements implemented in each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.4.14	Maintain a Data Dictionary for each CPD System.	Data Dictionary	Update at System Release

C.5.5 TASK 5 - DEVELOPMENT, MODERNIZATION AND ENHANCEMENT (DME) (LH)

DME means development, changes, or modifications of capabilities to existing systems to improve capability or performance; or changes mandated by the Congress or agency leadership.

C.5.5.1 DME TASK SPECIFICS

NOTE: DEVELOPMENT, MODERNIZATION AND ENHANCEMENT INCLUDES IDIS ONLINE, GMP, DRGR AND e-SNAPS SYSTEMS SUPPORT

The Contractor shall perform DME tasks on CPD Systems including IDIS Online, GMP, DRGR, and e-snaps. The Contractor shall ensure DME tasks include the re-engineering and/or enhancement of an existing system, the re-platforming of a system to refresh technical architecture, or upgrade of the referenced systems so that its technology remains current and operational.

The Contractor shall practice rigorous requirements management, project management, change control management and testing during DME efforts to ensure:

a) deployment of high-quality code that accurately meets the requirements
b) successful releases without introduction of unexpected problems
c) minimal need for emergency/corrective maintenance
d) minimal need to fix the same issue multiple times
e) HUD achieves maximum value out of limited IT budget resources

Development/Modernization/Enhancement (DME) actions that the contractor shall perform:

- The contractor shall modernize and re-engineer legacy systems towards HUD enterprise architecture-compliant standards. This may include full re-platforming from technically obsolescent environments to more current standards.
- The contractor shall modify or enhance existing capabilities, or add new capabilities to CPD Systems. This may include implementing new Grant Programs or Grants Management Processes, or streamlining existing business processes.
- The contractor shall perform development, modifications, and enhancements to the business rules, screens, or data elements of CPD systems required to implement new legislation, regulation, policy, or guidance.
- The contractor shall perform development, modifications, and enhancements to the DRGR system required to support Supplemental or other Appropriations established for disaster relief and economic recovery by Congress, and/or by Presidentially-declared natural disaster.
- The contractor shall perform development, modifications, and enhancements to CPD Systems to respond as part of a Management Plan, Remediation Plan, or other action required to comply with applicable information system laws, rules, and requirements. For example, HUD may need to perform modifications to CPD Systems to resolve Office of Inspector General Audit findings and recommendations.
- The contractor shall develop new MicroStrategy Reports, or modify and enhance existing MicroStrategy Reports, that are used by HUD for business intelligence, program reporting, oversight, and grants management.
- The contractor shall perform development, modifications, and enhancements to develop new system interfaces or enhance and modernize existing system interfaces with other CPD Systems or other HUD systems (for example, EGIS, core financial systems, or Geocode location services). For example, modification and enhancements may be required to an existing system interface to update it from an ODBC connection or a scheduled batch file to an interface utilizing web services

The Contractor's DME efforts for the above shall include:

1. **Requirements –** Analyze the business requirements to document the functional, data, and system requirements. Conduct requirements sessions with CPD program areas. Create and maintain the Requirements Traceability Matrix.
2. **Design –** Design, prototype, wireframe, or otherwise translate all requirements into system modifications, including but not limited to: functional requirements, use cases, system screens, reports, databases, system rules, and functions**.** This task requires continuous requirements refinement with CPD program areas. CPD program areas to sign off on design.
3. **Development & Testing –** Complete development and coding of system modifications. Perform testing such as unit testing, system and integration testing, and regression testing. Maintain the Requirements Traceability Matrix to track requirements through testing.
4. **UAT -** Provide technical support to HUD's User Acceptance Testing (UAT) including deployment new build to HUD UAT environment, delivering UAT test plan, test scripts, test data, and test report to CPD testers.
5. **Section 508 Compliance –** Ensure System meets the applicable accessibility standards of the Section 508 of the Rehabilitation Act stated in Section 6.C of the TOR.
6. **System Security efforts and tasks** – Ensure System meets the applicable information system security standards specified by HUD OCIO Security, Federal NIST Standards, and HUD ADP Security. Throughout implementation, assess the business, system, functional requirements for changes to the disposition of the system security. For any required updates, maintain the System Security Plan and the Implementation Statements using HUD's CSAM System.
7. **Deployment** – Perform Quality Assurance activities. Prepare the HARTS release package and submit to the HUD Test Center. Perform support activities for the Test Center and HUD Infrastructure to complete the software release(s) deployment to production. This includes troubleshooting, providing technical support or system expertise, and spot testing to ensure successful deployment.
8. **EVM** - Provide and update project schedule that includes Performance Measurement Baseline and Earned Value Management (EVM) information (including "% Complete", Planned and Actual Start dates, Planned and Actual Finish dates, Planned and Actual Costs, and resource names).
9. **Deliverables –** Deliver **updates to or create new** the following documents in final version to reflect effort above, as approved by HUD TPOC. Where applicable, documents shall conform to HUD Project Planning and Management (PPM) Version 2 artifact template standards:
    a. Project Work Plan / Performance Measurement Baseline
    b. Updates with actuals (dates, cost, effort) to Project Work Plan, delivered Bi-weekly
    c. Project Status reporting
    d. Maintain Requirements Traceability Matrix (RTM)
    e. Maintain Change Control Register / Log (CCR/CCL) reported bi-weekly
    f. Maintain a Risk Register reported bi-weekly
    g. Perform updates to Requirements Definition Document
    h. Perform updates to Functional Requirements Document
    i. Perform updates to Data Requirements Document
    j. Perform updates to Solution Architecture Document
    k. Deliver Test Scripts / Scenarios
    l. Maintain Test Results Reports
    m. Perform updates to Test Plan
    n. Perform updates to Implementation Plan
    o. Perform updates to User Manual information in Online Context Help if applicable
    p. EVM
    q. Perform Updates to Interface Control Document
    r. Perform updates to Operations & Maintenance Manual
    s. Perform updates to IDIS Data Download Definitions document
    t. Perform updates to IDIS Electronic Data Interface (EDI) Error Messages document

u. Perform updates to IDIS EDI Record Layout document
v. Perform updates to IDIS Report Users Guide
w. Perform updates to Data Dictionary
x. Deliver Release Notes

Deliverable(s):

The contractor shall update all PPM and other system documentation to reflect all changes implemented to production under DME work. Details about the PPM deliverables can be found at this website: https://portal.hud.gov/hudportal/HUD?src=/program_offices/cio/ppm/PPMV20Artifacts.

Section	Task	Description of Deliverable	Due Date
C.5.5.1	Update all PPM and other system documentation to reflect all changes implemented to production	PPM and other system documentation	Update at System Release

C.5.5.2 HUD PROJECT PLANNING AND MANAGEMENT (PPM) PROCESS

The Contractor shall cover one or multiple phases of the PPM process. The PPM process is a general guideline for all DME projects. Not all deliverables are required for all projects. CPD/OCIO will tailor artifacts required for each modification and identify which PPM artifacts to include or exclude. The Contractor shall develop new documents, or update existing documents, as specified in the modification. Example PPM artifacts can be found at this website:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/cio/ppm/PPMV20Artifacts

DME projects shall be initiated by modification and will follow HUD's Project Planning and Management (PPM) process or current equivalent.

The Contractor shall ensure the project plan includes milestones for requirements gathering/business process analysis meetings, agile development design sessions, prototype demonstrations, regular status meetings, and other meetings as necessary where the Contractor needs input from HUD or HUD requests demonstration of functionality. The project plan will also provide a schedule for all PPM and other deliverables identified in the modification.

The PPM process requires Gate Reviews as projects progress through the phases. The contractor shall participate in OCIO Gate Reviews or other technical project reviews as requested by the HUD TPOC.

C.5.5.3 PROJECT MANAGEMENT

The Contractor shall provide project management for DME efforts to ensure software developers and other technical staff follow project plans established in C.5.5.2. HUD will closely monitor the cost and schedule of DME tasks to minimize potential for cost and/or schedule variances. HUD encourages the Contractor to follow the work process flow, methodology, procedures, deliverables and best practices that conform to the standards dictated by the Project Management Body of Knowledge (PMBOK) Guide, Project Management Life Cycle defined and published by the Project Management Institute (PMI).

DME tasks shall follow HUD's Project Planning and Management (PPM) process. Details about the PPM process can be found at this website:
http://portal.hud.gov/hudportal/HUD?src=/program_offices/cio/ppm/PPMV20HOME

HUD encourages the use of an agile development methodology by tailoring the PPM to enable the planning, development, and delivery of useable functionality within 6-9 month increments.

C.5.5.4 CONFIGURATION MANAGEMENT PLAN

The Contractor shall update the existing Configuration Management (CM) Plan or create the Configuration Management Plan if it does not exist. The plan shall address the following:

- Configuration Management: Configuration management is a set of processes and procedures to identify configuration items, baseline configuration items and control changes to the configuration baseline. All changes must be evaluated and approved by the Change Control Board (CCB) in accordance with the procedures. The CCB constitutes HUD staff and HUD staff are responsible for determining priority and sequencing for releasing fixes and enhancements.
- Change Management: Change management identifies and defines steps for initiating software changes that may alter the current system or current requirements. The Contractor will maintain a Change Control Register (CCR) for each system to log and track all change requests and requests to implement new requirements.
- Release Management: Release management consists of specific processes that manage the risks associated with each release. The processes address the coordination and responsibilities of all functional areas affected by a release.
- Problem Tracking: Issues are thoroughly tracked and are sometimes submitted to the CCB for evaluation and approval of the proposed resolutions.
- Configuration Management Tools: The Contractor will use HUD's standard Configuration Management tools as part of the Configuration Management process.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.4	Create or update the existing Configuration Management (CM) Plan	Configuration Management Plan	Annually

C.5.5.5 QUALITY ASSURANCE PLAN

The Contractor shall provide a Quality Assurance (QA) Plan (QAP) that conforms to the minimum standards as identified in the Quality Assurance guidelines identified in the HUD PPM. The Contractor shall identify a team that is dedicated to Quality Assurance and ensure that only high quality products and services are delivered to HUD.

HUD will use a Quality Assurance Surveillance Plan (QASP) as part of the Government's efforts to monitor contractor performance. See Attachment 1.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.5	Provide a Quality Assurance (QA) Plan (QAP)	Quality Assurance Plan (QAP)	Annually

C.5.5.6 LESSONS LEARNED

The Contractor shall maintain a Lessons Learned document that conforms to the minimum standards as identified in the HUD PPM, updating it as part of Project closeout. The Contractor shall disseminate lessons learned to the team after each release, and make recommendations as appropriate to HUD to increase the quality of future deliverables and improve reliability and efficiency of systems.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.6	Maintain a Lessons Learned document and disseminate lessons learned to the team after each release	Lessons Learned Document	Update at System Release

C.5.5.7 RISK MANAGEMENT

HUDs PPM process emphasizes the importance of identifying, monitoring, managing, and mitigating risks for DME efforts. The Contractor shall, with input from the TPOC, develop a Risk Management Plan and a Risk Register for each DME project. Weekly updates to the Risk Register will be identified as tasks in each Project Work Plan (PWP). When the Contractor believes a technical project risk is on a path to be realized in the future, or already has been realized, they must notify the HUD TPOC.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.7	Develop a Risk Management Plan for each DME project	Risk Management Plan	Annually
C.5.5.7	Develop a Risk Register for each DME project	Risk Register	Weekly

C.5.5.8 EARNED VALUE MANAGEMENT

The Contractor shall use EVM as per requirements of HUD's PPM process for all DME Task with lifecycle development costs of $5 million or more.

The Contractor shall use EVM for Labor Hour Task only.

C.5.5.9 SECURITY PACKAGES

All Project Work Plans (PWPs) shall contain a task identifying each IT Security document update, as well as a task or tasks identifying IT security-related coding or system modification. The Security Package includes the following documents:

- Risk Assessment
- System Security Plan in government cybersecurity tool
- Contingency Plan

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.9	Maintain a Risk Assessment document that establishes the security disposition.	Risk Assessment	Annually
C.5.5.9	Maintain a Contingency Plan for system recovery and reconstitution.	Contingency Plan	Annually
C.5.5.9	Update a System Security Plan based on system changes implemented in the Release.	System Security Plan	Update at System Release

C.5.5.10 REQUIREMENTS TRACEABILITY MATRIX (RTM)

The Contractor shall create and update a Requirements Traceability Matrix (RTM) as required. The RTM is typically a direct input to the Requirements Definition Document. The RTM shall clearly link the new and/or changed requirements to where and how they have been implemented in the system. The RTM shall provide backwards and forward traceability, meaning the RTM documents each requirement from its source through definition, analysis, design, testing, acceptance, and deployment.

The size and level of detail of the RTM shall be commensurate with the size, scope, and risk of the issues being fixed for each corrective maintenance release.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.10	Create and update a Requirements Traceability Matrix (RTM)	Requirements Traceability Matrix (RTM)	Project Initiation and throughout the Life of the Project

C.5.5.11 TESTING

The Contractor shall conduct functional, unit, system/integration, regression, smoke, load/-performance and/or stability tests as applicable as part of their quality assurance plan for each system release. Each applicable test shall be identified as a milestone in the Work Breakdown Structure (WBS). Use of industry-standard automated testing software is strongly encouraged. The software shall be flexible to be able to handle changes and requirements of any complexity; allow for the recording and playback of scripts, along with the ability to maintain an ongoing test data suite; thus ensuring 100% of the requirements are met and that regression testing will fully test all previous functionality. The amount and type of testing shall be commensurate with the size, scope, and risk of the specific release as mutually agreed upon by the Contractor and the HUD TPOC.

The Contractor shall assist HUD staff in coordinating User Acceptance Testing (UAT) with impacted stakeholders, as per Section C.5.5.12 below.

C.5.5.12 USER ACCEPTANCE TESTING (UAT)

HUD will perform acceptance testing of the new or modified CPD systems code and/or database changes/additions after successful completion of Contractor testing. The Contractor shall prepare or update a User Acceptance Test (UAT) plan and test scenarios/scripts for users to follow during the initial structured portion of the UAT (following structured testing the users are encouraged to conduct their own free-form testing). The Contractor shall assist HUD during the preparation and execution of the acceptance test by establishing test data and maintaining the test environment. The Contractor shall provide the draft version of all documentation, including the Requirements Traceability Matrix (RTM), which shall be delivered with the final product at the time of the initiation of the UAT period. The RTM shall clearly link the new and/or changed requirements to where and how they have been implemented in the system, to assist the users during testing. The Contractor shall correct any errors identified by the User Acceptance Test team. The Contractor shall document the results of the testing in the Test Results Report.

Upon receipt of the report, HUD will examine the test results and make a determination as to the readiness of the new or modified CPD systems code and/or database changes/additions to be released into the production environment. HUD will certify the planned release under one of the following categories:

- It is virtually error free and should be released into production.
- Errors still exist that should be addressed, however, a decision could be made that either;
  - the release can proceed intact and the errors will be corrected and implemented through a subsequent release or,
  - the release can proceed but the portions determined defective will be removed from it and errors will be corrected and implemented through a subsequent release.
- It has major shortcomings and should not be released into production at this time. Instead, it should be returned for further development and re-testing.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.12	Prepare or update a User Acceptance Test (UAT) plan	Test Plan	2 Weeks prior to start of User Acceptance Testing
C.5.5.12	Test scenarios/scripts for users to follow during the initial structured portion of the UAT	Test Scenarios/Scripts	2 Weeks prior to start of User Acceptance Testing
C.5.5.12	Provide the draft version of all documentation, including the Requirements Traceability Matrix (RTM), which shall be delivered with the final product at the time of the initiation of the UAT period.	Test Results Report	2 Weeks upon conclusion of User Acceptance Testing
C.5.5.12	Document the results of the testing in the Test Results Report.	Test Results Report	3 Business Days upon conclusion of User Acceptance Testing

C.5.5.13 HARTS RELEASES

Once HUD has performed User Acceptance Testing (UAT) and final system performance load and stress testing has been completed successfully, the Contractor shall submit the approved product as a HUD Application Release Tracking System (HARTS) release request, along with all associated documentation required for the HARTS release. This shall include the preparation of the system release request in HUD's HARTS system, as well as the provision of test ID(s) and Password(s) and the necessary software code. The Contractor shall prepare and manage Release Notes to document the fixes/changes/ enhancements included in each system release and support the release process using HUD's standard CM tool, currently Serena Dimensions.

When the HUD IT Project Manager verifies that UAT is successfully complete, the Contractor shall prepare and submit a HARTS release package, which includes the technical release instructions, scripts, schedule, and other documentation.

The HUD IT Project Manager shall determine if the release is categorized as a regular or emergency release. Current HUD policy specifies a lead-time of 17 business days for regular releases and 4 business days for emergency releases. The Contractor shall be responsible for coordinating release testing with the HUD Test Center, including copying all relevant files into the Test Center's realignment testing environment used to simulate the production environment for each release. The Contractor shall support the HUD Test Center staff, OCIO staff, and/or HUD infrastructure contractors during the installation and configuration of software upgrades and application system releases as required. The Contractor shall also follow-up to provide Verification and Validation of the intended results within two business hours after the release installation has been completed, to verify that the installation was completed correctly.

The Contractor shall update all PPM and other system documentation to reflect all changes implemented to production under Corrective Maintenance work. The Contractor shall update the IT Security Plan and other documents if required. These documentation tasks will be identified in the project plan and PWP.

Code changes, configurations, and other contents of the software delivered in a HARTS release shall contain zero defects.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.13	Contractor shall submit the approved product (completed User Acceptance Testing (UAT), final system performance load and stress testing) as a HUD Application Release Tracking System (HARTS) release request, along with all associated documentation required for the HARTS release	HARTS Release Package	Per System Release

C.5.5.14 BUSINESS PROCESS MODELS

The Contractor will be responsible for Business process models that may include any of the following:

- Flow Charts
- Use Cases including Diagrams
- Activity Diagrams
- Work process simulations
- Other models as required by HUD

C.5.5.15 PROOF OF CONCEPT

A Proof of Concept is a non-operational representation of the proposed functionality. If the Project Plan calls for a Proof of Concept, it will include a graphical representation of the flow of screens or the progression through the logic of the system by the typical user.

C.5.5.16 PILOT

A Pilot is a deployment of the final product for a limited group or subset of users. The pilot is intended to decrease the overall risk of the project by only placing a limited number of users at risk of product failure in the deployment phase. If the Pilot is deemed to be acceptable, then the Release Plan and Data Conversion Plan continue as scheduled. The Contractor shall identify and document contingency plans prior to pilot deployment in the event that the pilot is not successful, outlining corrective action plans for the project, if necessary.

C.5.5.17 INTERFACE CONTROL DOCUMENT

The Contractor shall maintain an Interface Control document that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Contractor shall use the Interface Control document to catalog system identification, interface description (such as transactions), and the interface requirements for those information systems that interface with each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.17	Maintain an Interface Control document recording all system interfaces	Interface Control document	Update at System Release

C.5.5.18 OPERATIONS & MAINTENANCE MANUAL

The Contractor shall maintain an Operations & Maintenance Manual that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Operations & Maintenance Manual shall detail system and operational procedures, inventories, and inputs / outputs required for the performance and operation of each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.18	Maintain an Operations & Maintenance Manual recording system and operational procedures, inventories, and inputs / outputs required for the performance and operation of each CPD System.	Operations & Maintenance Manual	Update at System Release

C.5.5.19 TECHNICAL DESIGN DOCUMENT

The Contractor shall maintain a Technical Design Document that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Technical Design Document shall detail system architecture and design (data, user interface, security) each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.19	Maintain a Technical Design Document detail system architecture and design (data, user interface, security) for each CPD System.	Technical Design Document	Update at System Release

C.5.5.20 DATA DICTIONARY

The Contractor shall maintain a Data Dictionary that conforms to the minimum standards as identified in the HUD PPM, updating it for each System Release. The Data Dictionary shall record meta data required to provide system, functional, and business context to the data elements implemented in each CPD System.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.20	Maintain a Data Dictionary for each CPD System.	Data Dictionary	Update at System Release

C.5.5.21 ELECTRONIC DATA INTERCHANGE (EDI) AND DATA DOWNLOAD DOCUMENTATION

IDIS utilizes an Electronic Data Interchange. This capability allows grantee users of IDIS to import large quantities of activity data or other mandatory reporting data directly into IDIS using a structured data file, instead of performing data entry by hand.

The Contractor shall maintain EDI Documentation upon any IDIS System Release that will impact the performance or requirements of the EDI. The EDI Documentation consists of the following:

a. Data Download Definitions document.
b. IDIS Electronic Data Interface (EDI) Error Messages document. This document provides a reference manual of EDI error messages for IDIS EDI users to troubleshoot when issues are encountered with an EDI data submission.
c. Perform updates to IDIS EDI Record Layout document. This document provides descriptions of all Electronic Data Interchange (EDI) objects in IDIS.

HUD permits IDIS users with reporting privileges to download data-call data extracts directly from IDIS database tables. The Contractor shall maintain Data Download Documentation upon any IDIS System Release that will impact the performance or requirements of the Data Download capability. The Data Download Documentation discusses user instructions, catalogs all data extract files and relevant database tables, layout structure and rules for exported data files, and guidance for understanding legacy data from prior IDIS export files.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.21	Maintain IDIS Electronic Data Interface (EDI) Record Layout document and IDIS EDI Error Messages document.	IDIS EDI Record Layout document and IDIS Electronic Data Interface (EDI) Error Messages document.	Update at System Release
C.5.5.21	Maintain IDIS Online Appendix D Data Extract File Layouts	IDIS Online Appendix D Data Extract File Layouts	Update at System Release

C.5.5.22 IDIS REPORT USERS GUIDE

The Contractor shall maintain the IDIS Report Users Guide, updating it for each IDIS System Release. The IDIS Report Users Guide provides a user manual for generating and troubleshooting IDIS reports, and catalogs a description of each report available to users through the IDIS MicroStrategy reports interface.

Deliverable(s):

Section	Task	Description of Deliverable	Due Date
C.5.5.22	Maintain a IDIS Report Users Guide for IDIS.	IDIS Report Users Guide	Update at System Release

C.6 SECTION 508 COMPLIANCE

Section 508 of the Rehabilitation Act requires Federal agencies to make their electronic and information technology accessible to people with disabilities. This applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology.

All electronic and information technology (EIT) procured through this task order must meet the applicable accessibility standards specified in 36CFR1194.2, unless an agency exception to this requirement exists. Any agency exceptions applicable to this task order are listed below.

The standards define Electronic and Information Technology, in part, as “any equipment or interconnected system or subsystem of equipment that is used in the creation, conversion, or duplication of data or information. The standards define the type of technology covered and set forth provisions that establish a minimum level of accessibility. The application section of the standards (1194.2) outlines the scope and coverage of the standards. The standards cover the full range of electronic and information technologies in the Federal sector, including those used for communication, duplication, computing, storage, presentation, control, transport and production. This includes computers, software, networks, peripherals and other types of electronic office equipment.

APPLICABLE STANDARDS, WHICH APPLY TO THIS ACQUISITION

Section 1194.21: Software Applications and Operating Systems _____X____.
Section 1194.22: Web-based Internet Information and Applications _____X_____.
Section 1194.23: Telecommunications Products _____.
Section 1194.25: Self-Contained, Closed Products _____.
Section 1194.26: Desktop and Portable Computers _____.
Section 1194.31: Functional Performance Criteria _____.

AGENCY EXCEPTIONS, WHICH APPLY TO THIS ACQUISITION

National Security System _____.
Acquired by a contractor incidental to a contract _____.
Located in spaces frequented only by a service personnel for maintenance, repair or
Occasional monitoring of equipment _____.
Would impose and undue burden on the agency _____.

The Contractor must demonstrate compliance to 508 standards or their proposal will not be evaluated.